DEPARTMENT OF THE NAVY



JOINT BASE ANACOSTIA-BOLLING 20 MACDILL BLVD, SUITE 300 WASHINGTON, D.C. 20032-7711

> 5090 Ser December 26, 2017

Karen Crumlish, Branch Chief Drinking Water Branch (3WP21) Water Protection Division U.S. EPA Region 3 1650 Arch Street Philadelphia, PA 19103-2029

Ms. Crumlish:

Enclosed are the nitrate results from the December 2017 sample event on the Joint Base Anacostia-Bolling (JBAB) Bolling side. Included with the results are the certificates of analysis and the Chain of Custody Form.

Based on the JBAB-Anacostia sample results, the nitrate analytical results were below the MCL of 10 mg/L.

Please mail all correspondence to:

ATTN: Director, Installation Environmental Program Department of the Navy PWD- Joint Base Anacostia-Bolling 370 Brookley Avenue SW JBAB, Washington, DC 20032-0101

If you have any questions or require further information, please contact Ms. Anna Angione, of my staff, at (202) 685-3267 or via email at anna.angione@navy.mil.

Sincerely,

MADINA M. ALHARAZIM

ache U-Alhon

By direction

Enclosures: (1) Nitrate certificates of analysis and chain of custody form for December 2017









2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-6766 • www.EurofinsUS.com/LancLabsEnv

ANALYSIS REPORT

Prepared by:

Prepared for:

Eurofins Lancaster Laboratories Environmental 2425 New Holland Pike Lancaster, PA 17601 Inspection Experts, Inc. 9220 Rumsey Road Bay #5 Columbia MD 21045

Report Date: January 05, 2018 09:44

Project: NAVFAC Regional/JBAB Nitrate

Account #: 38771 Group Number: 1891433 PO Number: 1511-221 Release Number: JBAB State of Sample Origin: MD

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our current scopes of accreditation can be viewed at http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/. To request copies of prior scopes of accreditation, contact your project manager.

Electronic Copy To Inspection Experts Inc. Attn: Kosala De Silva

Respectfully Submitted,

Jordan Zito
Project Manager

(717) 556-7289









2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-6766 • www.EurofinsUS.com/LancLabsEnv

Environmental

SAMPLE INFORMATION

Client Sample Description	Sample Collection	ELLE#
	Date/Time	
BOL-31 Grab Water Sample	12/28/2017 09:57	9387935
BOL-628 Grab Water Sample	12/28/2017 09:24	9387936
BOL-69 Grab Water Sample	12/28/2017 10:07	9387937
BOL-4472 Grab Water Sample	12/28/2017 08:54	9387938
BOL-46 Grab Water Sample	12/28/2017 08:15	9387939
BOL-6126 Grab Water Sample	12/28/2017 08:40	9387940
BOL-1587A Grab Water Sample	12/28/2017 09:09	9387941

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.



WW 9387935

1891433

Inspection Experts, Inc. **ELLE Sample #:**

ELLE Group #:

Matrix: Wastewater

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-6766 • www.EurofinsUS.com/LancLabsEnv

Sample Description: **BOL-31 Grab Water Sample**

NAVFAC Regional/JBAB Nitrate

Project Name: NAVFAC Regional/JBAB Nitrate

Submittal Date/Time: 12/28/2017 16:20 Collection Date/Time: 12/28/2017 09:57

Method Limit of CAT Dilution **Detection Limit* Analysis Name CAS Number** Quantitation No. Result Factor **Wet Chemistry EPA 300.0** mg/l mg/l mg/l 00368 Nitrate Nitrogen 14797-55-8 1.7 0.25 0.50 5

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00368	Nitrate Nitrogen	EPA 300.0	1	17362987213A	12/28/2017 23:09	Clinton M Wilson	5



WW 9387936

Dilution

Factor

1891433

Inspection Experts, Inc. **ELLE Sample #:**

ELLE Group #:

Matrix: Wastewater

Limit of

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-6766 • www.EurofinsUS.com/LancLabsEnv

Sample Description: **BOL-628 Grab Water Sample**

NAVFAC Regional/JBAB Nitrate

NAVFAC Regional/JBAB Nitrate

Submittal Date/Time: 12/28/2017 16:20

Project Name:

Collection Date/Time: 12/28/2017 09:24

CAT **Detection Limit* Analysis Name CAS Number** Quantitation No. Result

Wet Chemistry EPA 300.0 mg/l mg/l mg/l

00368 Nitrate Nitrogen 14797-55-8 1.5 0.25 0.50 5

Sample Comments

Method

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00368	Nitrate Nitrogen	EPA 300.0	1	17362987213A	12/28/2017 23:23	Clinton M Wilson	5



WW 9387937

Dilution

Factor

1891433

Inspection Experts, Inc. **ELLE Sample #:**

ELLE Group #:

Matrix: Wastewater

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-6766 • www.EurofinsUS.com/LancLabsEnv

Sample Description: **BOL-69 Grab Water Sample**

NAVFAC Regional/JBAB Nitrate

Project Name: NAVFAC Regional/JBAB Nitrate

Submittal Date/Time: Collection Date/Time: 12/28/2017 10:07

12/28/2017 16:20

Method Limit of CAT **Detection Limit* Analysis Name CAS Number** Quantitation No. Result

Wet Chemistry EPA 300.0 mg/l mg/l mg/l

00368 Nitrate Nitrogen 14797-55-8 1.6 0.25 0.50 5

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00368	Nitrate Nitrogen	EPA 300.0	1	17362987213A	12/29/2017 00:06	Clinton M Wilson	5



WW 9387938

1891433

Inspection Experts, Inc.

ELLE Sample #:

Matrix: Wastewater

ELLE Group #:

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-6766 • www.EurofinsUS.com/LancLabsEnv

Sample Description: **BOL-4472 Grab Water Sample**

NAVFAC Regional/JBAB Nitrate

Project Name: NAVFAC Regional/JBAB Nitrate

Submittal Date/Time: Collection Date/Time: 12/28/2017 08:54

12/28/2017 16:20

Method Limit of CAT Dilution **Detection Limit* Analysis Name CAS Number** Quantitation No. Result Factor

Wet Chemistry EPA 300.0 mg/l mg/l mg/l

00368 Nitrate Nitrogen 14797-55-8 1.5 0.25 0.50 5

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00368	Nitrate Nitrogen	EPA 300.0	1	17362987213A	12/29/2017 00:21	Clinton M Wilson	5



WW 9387939

1891433

Inspection Experts, Inc. **ELLE Sample #:**

ELLE Group #:

Matrix: Wastewater

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-6766 • www.EurofinsUS.com/LancLabsEnv

Sample Description: **BOL-46 Grab Water Sample**

NAVFAC Regional/JBAB Nitrate

Project Name:

Submittal Date/Time: 12/28/2017 16:20 Collection Date/Time: 12/28/2017 08:15

NAVFAC Regional/JBAB Nitrate

Method Limit of CAT Dilution **Detection Limit* Analysis Name CAS Number** Quantitation No. Result Factor **Wet Chemistry EPA 300.0** mg/l mg/l mg/l 00368 Nitrate Nitrogen 14797-55-8 2.2 0.25 0.50 5

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00368	Nitrate Nitrogen	EPA 300.0	1	17362987213A	12/29/2017 00:35	Clinton M Wilson	5



WW 9387940

1891433

Inspection Experts, Inc.

ELLE Sample #:

Matrix: Wastewater

ELLE Group #:

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-6766 • www.EurofinsUS.com/LancLabsEnv

Sample Description: **BOL-6126 Grab Water Sample**

NAVFAC Regional/JBAB Nitrate

Project Name: NAVFAC Regional/JBAB Nitrate

12/28/2017 16:20 Collection Date/Time:

Submittal Date/Time:

12/28/2017 08:40

Method Limit of CAT Dilution **Detection Limit* Analysis Name CAS Number** Quantitation No. Result Factor

Wet Chemistry EPA 300.0 mg/l mg/l mg/l

00368 Nitrate Nitrogen 14797-55-8 2.3 0.25 0.50 5

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00368	Nitrate Nitrogen	EPA 300.0	1	17362987213A	12/29/2017 00:49	Clinton M Wilson	5



WW 9387941

Dilution

Factor

1891433

Inspection Experts, Inc.

ELLE Sample #:

Matrix: Wastewater

Limit of

mg/l

Quantitation

ELLE Group #:

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-6766 • www.EurofinsUS.com/LancLabsEnv

Sample Description: **BOL-1587A Grab Water Sample**

NAVFAC Regional/JBAB Nitrate

Project Name: NAVFAC Regional/JBAB Nitrate

Submittal Date/Time: 12/28/2017 16:20 Collection Date/Time: 12/28/2017 09:09

Wet Chemistry

CAT **Analysis Name CAS Number** No. Result

EPA 300.0

mg/l

Method

Detection Limit*

00368 Nitrate Nitrogen 14797-55-8 1.6 0.25 0.50 5

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00368	Nitrate Nitrogen	EPA 300.0	1	17362987213B	12/29/2017 01:04	Clinton M Wilson	5

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-6766 • www.EurofinsUS.com/LancLabsEnv

Quality Control Summary

Client Name: Inspection Experts, Inc. Group Number: 1891433

Reported: 01/05/2018 09:44

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	MDL**	LOQ
	mg/l	mg/l	mg/l
Batch number: 17362987213A	Sample num	ber(s): 9387935-	9387940
Nitrate Nitrogen	N.D.	0.050	0.10
Batch number: 17362987213B	Sample num	ber(s): 9387941	0.10
Nitrate Nitrogen	N.D.	0.050	

LCS/LCSD

Analysis Name	LCS Spike Added mg/l	LCS Conc mg/l	LCSD Spike Added mg/l	LCSD Conc mg/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 17362987213A Nitrate Nitrogen	Sample number(0.750	(s): 9387935-9 0.697	9387940 0.750	0.699	93	93	90-110	0	20
Batch number: 17362987213B Nitrate Nitrogen	Sample number(0.750	(s): 9387941 0.697	0.750	0.699	93	93	90-110	0	20

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc mg/l	MS Spike Added mg/l	MS Conc mg/l	MSD Spike Added mg/l	MSD Conc mg/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: 17362987213A Nitrate Nitrogen	Sample number 1.37	er(s): 9387935-9 2.50	9387940 U 3.92	NSPK: P386973		102		90-110		
Batch number: 17362987213B Nitrate Nitrogen	Sample number 1.60	er(s): 9387941 l 2.50	JNSPK: 93 4.00	387941		96		90-110		

P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

^{*-} Outside of specification

^{**-}This limit was used in the evaluation of the final result for the blank

⁽¹⁾ The result for one or both determinations was less than five times the LOQ.

⁽²⁾ The unspiked result was more than four times the spike added.

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-6766 • www.EurofinsUS.com/LancLabsEnv

Quality Control Summary

Client Name: Inspection Experts, Inc. Group Number: 1891433

Reported: 01/05/2018 09:44

Laboratory Duplicate

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc mg/l	DUP Conc mg/l	DUP RPD	DUP RPD Max
Batch number: 17362987213A Nitrate Nitrogen	Sample number(s): 9387 1.37	7935-9387940 BKG: P3 1.37	86973 0 (1)	15
Batch number: 17362987213B Nitrate Nitrogen	Sample number(s): 9387 1.60	7941 BKG: 9387941 1.60	0 (1)	15

^{*-} Outside of specification

^{**-}This limit was used in the evaluation of the final result for the blank

⁽¹⁾ The result for one or both determinations was less than five times the LOQ.

⁽²⁾ The unspiked result was more than four times the spike added.

P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Environmental Analysis Request/Chain of Custody

25		•		.	,			· y `			9	,		•	. •			coup
UmroasterLabbortories Environmental		Acct. # 3 8	37=	71	_ Grou	p# <u>189</u>	14	<u>33</u>	·····	Sample	#9	387	935	_(<u>{ </u>			Page 1 of 1
Client: Inspection Experts, Inc JBAB						Matrix			Analyses					este	∍d		For Lab U	se Only
Project Name/#: NAVFAC Regional/JBAB Nitrate	Site ID #:	: JBAB															SF #:	
Project Manager: Kosala De Silva	P.O. #:				gree	8 9							1				SCR#:	
Sampler: Gayan Kularathne	PWSID #:			Tissue	Ground Surface				1			+					ation Codes	
Phone #: 410-715-3939 Quote #:				┆╗			ers									H = HCI	T = Thiosulfate	
	r Compliance:		No.	$\overline{\Box}$	nen	1		Itair									N = HNO ₃	
State Wilete Samples were collected ND O		ection		Composite	☐ Sediment	Potable Sr NPDES	 <u>::</u>	Total # of Containers	Nitrates (EPA 300.0)								$S = H_2SO_4$ $O = Other$	B = NaOH P = H ₃ PO ₄
Sample Identification	Date	Time	Grab	Som	Soil	Water	Other:	lota	Nitrate									narks
BOL-31	12/28		X	 Ŭ	"	DW	<u> </u>	1	1	 		+	+					
BOL-628		0924	Х		T	DW		1	1		\top	\top	+		\dagger			
BOL-69	- / ,	1007	Х		T	DW		1	1			1	11					
BOL-4472		0854	Х			DW		1	1				1				1	
BOL-46		0815	Х			DW		1	1				11					
BOL- 6000 ら2 し		0840	Х			DW		1	1									
BOL-1587 🛕		0909	Х			DW		1	1									
Turnaround Time Requested (TAT) (please check): Standard				ī 🔲		nquished				Dat 12 2	8	Time 1400		W.		1/2	Date	Time 1420
Date results are needed:				Relinquished by:					Date Time			Rece	Received by:			Date	Time	
Rush results requested by (please check): E-Mail Phone Phone							12	<u> </u>										
E-mail Address: <u>kosala@ieinc.net</u> Phone: 410-715-3939				Relir	Relinquished by:				Date	е	Time	Rece	Received by:		Date	Time		
Data Package Options (please check if required)				Relinquished by:				Date Time		Rece	Received by:			Date	. Time			
Type I (Validation/non-CLP)																		
Type III (Reduced non-CLP)				Relinquished by:				Date Time		Rece	Received by:			Date	Time			
Type VI (Raw Data Only) TX TRRP-13										ک	Ednor			12-18-1	1620			
NJ DKQP NYSDEC Category A or B					Relir	elinquished by Commercial Carrier:					. <i>j</i>							

UPS

No

If yes, format:

Yes

EDD Required?

Temperature upon receipt $\bigcirc \mathcal{A}$

FedEx

Other



Sample Administration Receipt Documentation Log

Doc Log ID: 204950

Group Number(s): 1891433

Client: Inspection Experts, Inc. - JBAB

Delivery and Receipt Information

Delivery Method: <u>ELLE Courier</u> Arrival Timestamp: <u>12/28/2017 16:20</u>

Number of Packages: 1 Number of Projects: 1

State/Province of Origin: MD

Arrival Condition Summary

Shipping Container Sealed: Yes Sample IDs on COC match Containers: Yes

Custody Seal Present: No Sample Date/Times match COC: Yes

Samples Chilled: Yes VOA Vial Headspace ≥ 6mm: N/A

Paperwork Enclosed: Yes Total Trip Blank Qty: 0

Samples Intact: Yes Air Quality Samples Present: No

Missing Samples: No

Extra Samples: No

Discrepancy in Container Qty on COC: No

Unpacked by Melvin Sanchez (8943) at 16:38 on 12/28/2017

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

 Cooler #
 Thermometer ID
 Corrected Temp
 Therm. Type
 Ice Type
 Ice Present?
 Ice Container
 Elevated Temp?

 1
 DT131
 0.4
 DT
 Wet
 Y
 Loose
 N



Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	mg	milligram(s)
С	degrees Celsius	mL	milliliter(s)
cfu	colony forming units	MPN	Most Probable Number
CP Units	cobalt-chloroplatinate units	N.D.	non-detect
F	degrees Fahrenheit	ng	nanogram(s)
g	gram(s)	NTU	nephelometric turbidity units
IU	International Units	pg/L	picogram/liter
kg	kilogram(s)	RL	Reporting Limit
L	liter(s)	TNTC	Too Numerous To Count
lb.	pound(s)	μg	microgram(s)
m3	cubic meter(s)	μL	microliter(s)
meq	milliequivalents	umhos/cm	micromhos/cm
<	less than		
>	greater than		
ppm		be equivalent to milli	kilogram (mg/kg) or one gram per million grams. For grams per liter (mg/l), because one liter of water has a weight uivalent to one microliter per liter of gas.
ppb	parts per billion		
Dry weight basis			oisture content. This increases the analyte weight ample without moisture. All other results are reported on an

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.



Data Qualifiers

Qualifier	Definition
С	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
Р	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised
	due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.